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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,963	08/18/2006	Mitsuma Matsuda	4731-0137PUS1	1057

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EXAMINER

SLIFKA, COLIN W

ART UNIT	PAPER NUMBER
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1793

NOTIFICATION DATE	DELIVERY MODE
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04/29/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/589,963	Applicant(s) MATSUDA, MITSUMA	
	Examiner COLIN W. SLIFKA	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6-13 and 15 is/are pending in the application.
- 4a) Of the above claim(s) 8-13 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara et al (US 2002/0152843) in view of Strange (US 4,369,062) and Fosnacht (US 4,585,475).

Ishihara teaches a briquette for use in steel making containing grinding chips from an iron-based metal and a grinding fluid containing oil and water (abstract). One of the benefits that the oil has is to suppress the oxidization of the powdery pure iron (par. 11, lines 6-8).

Ishihara does not teach the use of shot waste as the specific metal waste used in the briquette.

Strange teaches briquettes for use in steel making made from reclaimed mill waste (col. 1, lines 6-9) with the waste being steel shot (col. 2, lines 13-14). Overall, these 2 inventions teach similar methods of recycling small pieces of scrap metal. It would have been obvious to one of ordinary skill in the art at the time of the invention to use these processes to recycle steel shot, grinding chips, metal filings or shavings from machine shops, any kind of swarf, etc.... Therefore, it would also have been obvious to

Art Unit: 1793

one of ordinary skill in the art at the time of the invention to use the shot waste as taught by Strange as the metal waste used in Ishihara's briquette.

Ishihara does not teach a specific amount of metal waste to be used in each briquette.

Fosnacht teaches a method of recycling mill scale, wherein the mill scale is mixed and blended with a binder, and the mixture is agglomerated into shapes, such as briquettes (abstract). Fosnacht also teaches that an addition material for increasing the strength of the agglomerated shapes is a material known as swarf, which is obtained by the grinding of billets during the steel manufacturing operations. The agglomerated shape may contain, as part of the mixture of mill scale and swarf, up to 50 wt. % swarf, although 1-5 wt. % swarf is the preferred range (col. 3, lines 37-45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use various forms of metal waste, as taught by Ishihara, Strange, and Fosnacht and stated above, for briquettes in an amount of from 1-50 wt. %, as Fosnacht teaches that the strength of the briquettes is increased.

It is noted that Strange teaches metallic fines present in an amount of 50% by weight, and that the metallic fines may include any number of various sources, of them being fines of steel shot. While not giving a definitive amount of shot waste, this only suggests that an amount of shot waste can be used in combination with other metallic waste to equal 50% by weight of the entire briquette. With this understanding, it is considered that the references suggest that shot waste can make up from 0-50% by weight of the briquette.

Art Unit: 1793

Regarding claim 7 and the limitation in claim 1 of the amount of solidification assistant in the briquette, Ishihara teaches that the solidification assistant may be colloidal silica (sodium silicate), aluminum phosphate, asphalt emulsion, or bentonite among others (par. 14, lines 1-5) and that the briquette contains 2-30 wt% of solidification assistant (par 17. lines 1-3).

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 6, and 7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to COLIN W. SLIFKA whose telephone number is (571)270-5830. The examiner can normally be reached on Monday-Thursday, 10:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/COLIN W SLIFKA/
Examiner, Art Unit 1793

CS
April 26, 2009

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793